gas-fired weatherproof duct furnace/make-up air units

These specifications cover unit(s) shown on the equipment schedule in the plans.

GENERAL
Contractor shall furnish and install a Modine model
WDG/WDG ______ WBG/WBG _______ WSG/WSG ______ WDP/WDP ______ WBP/WBP ______ WPS/WPS ______ gas-fired weatherproof duct furnace/make-up air unit with the performance as indicated on the equipment schedule shown in the plans. The weatherproof duct furnace shall have a rated input of __________ MBH and have
A.G.A. (American Gas Association)
C.G.A. (Canadain Gas Association)
Design certification. All weatherproof enclosures shall be made of aluminumized steel with a material thickness of not less than 0.20 gauge and shall be painted with a baked-on grey-green polyester powder coat for corrosion resistance. Models WDG/WDG and WDP/WDP shall be factory assembled to a rail type mounting base for roof or slab mounting. Models WGD/WBG and WBP/WBP shall be factory assembled to a roof curb type mounting base (for roof curb mounting). Models WGS/WSG and WFP/WSP shall be factory assembled to a roof curb type mounting base for either side or roof curb mounting.

HEAT EXCHANGER AND BURNER
Heat exchanger shall be made of aluminumized steel, stainless steel (Type 409) ________ with a material thickness of not less than 0.20 gauge. Heat exchanger shall be completely self-contained and shall have smoothly contourured stress-free tubes. Heat exchanger tubes and headers shall be made of the same material. Tubes shall be direct fired. The burner shall be made of the same material as the heat exchanger with a material thickness of not less than 0.20 gauge. Burner shall have non-clogging, slotted ports designed for good lighting characteristics without noise of extinction. The burner box assembly shall be completely removable from the side of the unit for servicing and cleaning. Burner manifold piping is to include a ground joint union to facilitate easy removal of the burner box assembly.

GAS CONTROLS
Units shall be provided with Control Code ________ Controls shall be designed for use with natural gas or propane ________ gas with ________ specific gravity and Btu content of ________ Btu/scf, ft at ________ sea level. All controls shall be rated for a maximum inlet pressure of 1/2 psi and shall be easily accessible through removal of the side panel of the weatherproof duct furnace. If single-stage gas controls are specified the temperature shall be controlled by the use of a single-stage room thermostat. If two-stage controls are specified the temperature shall be controlled by:
A Two-Stage Room Thermostat
A Two-Stage Duct Stat
A Two-Stage Duct Stat with a Two-Stage Room Override Stat
If mechanical modulating controls are specified the temperature shall be controlled by a hydrostatic-type sensing tube located in the discharge air stream.

If electronic modulating controls are specified the temperature shall be controlled by:
Duct Sensing System
Duct Sensing System with Room Override Stat
Room Temperature Sensing
In addition to the above controls the following controls shall be included if checked:
Freeze Stat
Fire Stat
Summer/Winter Switch
Thermostat Subbase
Thermostat Guard
Remote Monitoring Panel
Gas Pressure Regulator (5 to 10 psi inlet)

BLOWER SECTION — MODELS WDG, WBG, WDB, WBP, WGS, WPS & WBP
The blower section shall be provided completely factory assembled to the duct furnace section and mounted on a base ready for installation. The blower section shall have full "I" insulation and shall include a blower and drive assembly. All units shall include blowers(s) and one motor capable of delivering ______ CFM at ________ inch external static pressure to the unit. Motor shall be ______ Horsepower ______ volts, ______ Hz, ______ phase. Motor shall be totally enclosed and shall have thermal overload protection built in single phase. Blower drive shall be capable of achieving a blower rpm of ______ rpm. The blower section shall also include the following items if checked:
Filter Rack & Filters (1" or 2" cleanable type)
Fixed Position Fresh Air Damper
Fixed Position Fresh Air Return Damper
Fixed Damper with Two-Position Damper Motor
Fresh & Return Air Dampers with Two-Position Motor
Fresh & Return Air Dampers with Modulating Damper Motor
Rainbird & Bird Screen (shipped separately)
If modulating dampers are used they shall be controlled with the use of a
Remote Manual Potentiometer
Proportional Temperature Controller
Economizer Package (Manual Potentiometer and Proportional Controller)

In addition to the above the following shall be provided if checked:
Disconnect Switch (Fusible type)
Motor Starter
Optional Transformer (to supply control voltage for automatic blowers)
Auxiliary Contact on Motor Starter
Convenience Outlet

DOWNTURN PLENUM SECTION — MODELS WDG, WDG, WBP & WPS
The downturn plenum section shall be provided completely factory assembled to the duct furnace and blower section and shall be mounted on a base ready for installation. The downturn section shall be provided with full "I" insulation.

ROOF CURBS
A factory supplied roof curb shall be provided for units(s) as shown on the plans. The roof curb shall be constructed of 0.0516 galvanized steel and shall be provided completely with nailing strips. The roof curb shall have a minimum height of 12".

SPECIFICATIONS

April, 1991

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<table>
<thead>
<tr>
<th>OPTIONAL CONTROLS</th>
<th>Control Code</th>
<th>Service Voltage</th>
<th>Thermostat Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermittent-Duty Pilot Ignition includes: a combination automatic redundant gas valve and spark ignition controller, non-lockout type; overhead control and low-voltage transformer. For use with natural gas. (Also Includes motor relay for breaker and system models.)</td>
<td>08 09</td>
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<td>115v</td>
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- When supply voltage to unit is 208v all units require a 208/240v XWNR to supply 240v to power vent motor.